

Amendments to the Claims:

Claims 6, 7, 17, and 20-22 have been amended herein. Please cancel claim 19 without prejudice or disclaimer. New dependent claims 23-27 have been added. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1.-5. (Cancelled)

6. (Currently amended) A method of forming a gate stack, comprising:
forming a gate dielectric layer on a silicon substrate;
forming a polysilicon layer on top of the gate dielectric layer;
subjecting the polysilicon layer to an ion implantation of impurities;
depositing a metallic silicide film in a non-annealed state atop the polysilicon layer; and
depositing a dielectric cap layer formed from silicon nitride over the metallic silicide film at a temperature below about 600°C, wherein the temperature is sufficiently low to maintain the metallic silicide film in the non-annealed state.

7. (Currently amended) A method of forming a gate stack, comprising:
forming a gate dielectric layer on a silicon substrate;
forming a polysilicon layer on top of the gate dielectric layer;
subjecting the polysilicon layer to an ion implantation of impurities;
depositing a metallic silicide film in a non-annealed state atop the polysilicon layer; and
depositing a dielectric cap layer formed from silicon nitride over the metallic silicide film at a temperature below about 600°C, wherein the temperature is sufficiently low to preclude formation of silicon clusters in the metallic silicide film.

8.-16. (Cancelled)

17. (Currently amended) A method for forming a gate stack, comprising:
providing a semiconductor substrate with a dielectric layer on an active surface of the
semiconductor substrate, wherein a polysilicon layer is disposed over the dielectric layer;
forming a metallic silicide film in a non-annealed state over the polysilicon layer;
forming a dielectric cap from silicon nitride on the metallic silicide film at a sufficiently low
temperature so that the metallic silicide film remains in the non-annealed state;
forming and patterning a resist layer on the dielectric cap;
etching the dielectric cap, the metallic silicide film, and the polysilicon layer; and
stripping the resist layer.

18. (Previously presented) The method of claim 17, wherein forming the dielectric
cap is effected at a temperature below about 600°C.

Claim 19 (Canceled)

20. (Currently amended) The method of ~~claim 19~~claim 6, wherein ~~the~~ depositing a
~~the~~ dielectric cap layer formed from silicon nitride over the metallic silicide film is effected at a
temperature of between 400°C and 600°C.

21. (Currently amended) The method of ~~claim 19~~claim 6, wherein ~~the~~ depositing a
~~the~~ dielectric cap layer formed from silicon nitride over the metallic silicide film is effected at a
temperature of about 500°C.

22. (Currently amended) The method of ~~claim 19~~claim 6, wherein ~~the~~ depositing a
~~the~~ dielectric cap layer formed from silicon nitride over the metallic silicide film is effected at a
temperature sufficiently low to preclude formation of silicon clusters in the metallic silicide film.

23. (New) The method of claim 7, wherein depositing the dielectric cap layer formed from silicon nitride over the metallic silicide film is effected at a temperature of between 400°C and 600°C.

24. (New) The method of claim 7, wherein depositing the dielectric cap layer formed from silicon nitride over the metallic silicide film is effected at a temperature of about 500°C.

25. (New) The method of claim 17, wherein forming the dielectric cap from silicon nitride on the metallic silicide film is effected at a temperature of between 400°C and 600°C.

26. (New) The method of claim 17, wherein forming the dielectric cap from silicon nitride on the metallic silicide film is effected at a temperature of about 500°C.

27. (New) The method of claim 17, wherein forming the dielectric cap from silicon nitride on the metallic silicide film is effected at a temperature sufficiently low to preclude formation of silicon clusters in the metallic silicide film.